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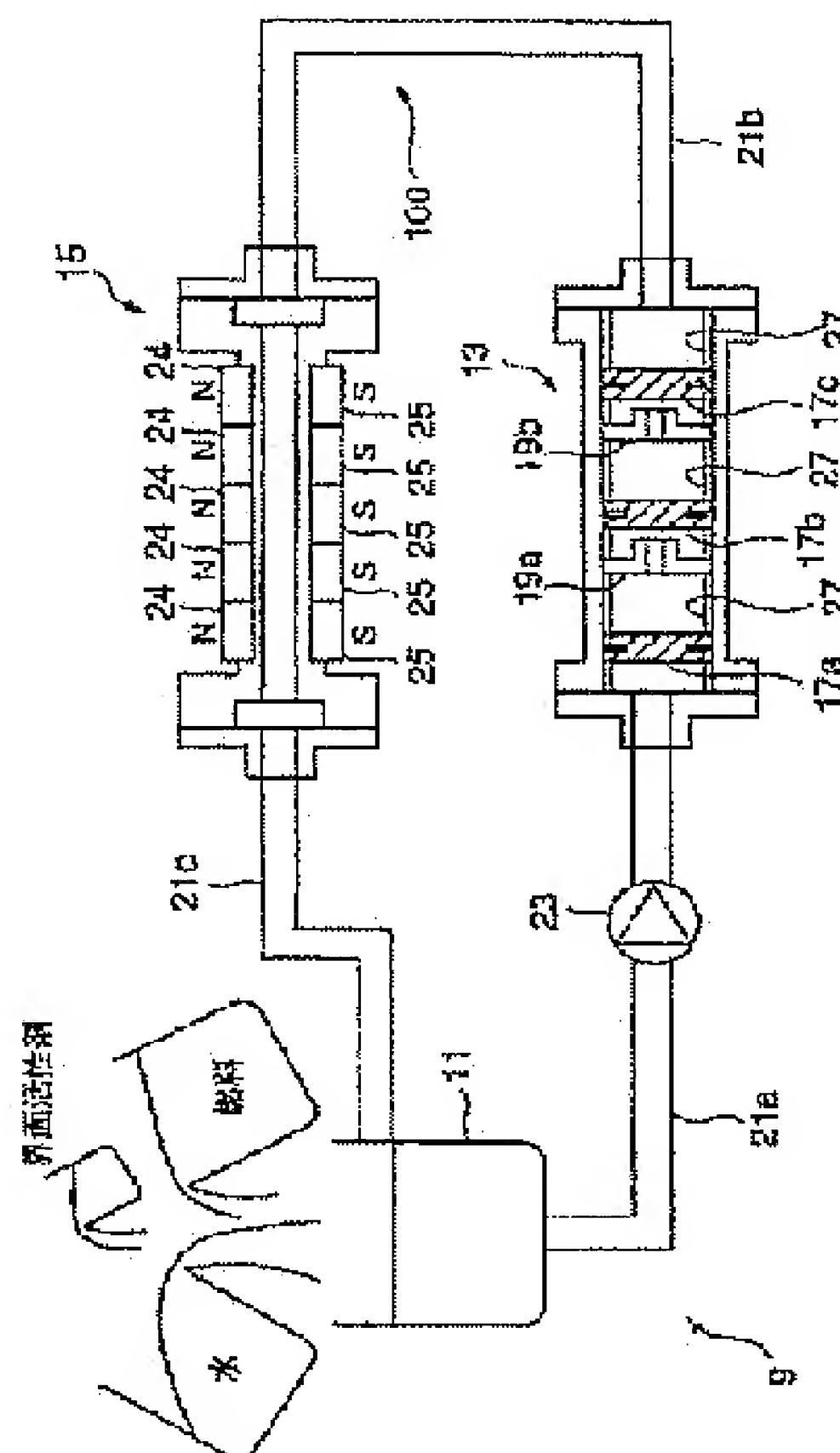
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APPLICANT : KOMATSU LTD;

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TITLE : APPARATUS AND METHOD FOR
MICRONIZING LIQUID MOLECULAR
CLUSTER



ABSTRACT : PROBLEM TO BE SOLVED: To micronize a liquid molecular cluster, concretely, to produce a high-quality emulsion fuel at a low cost in large amount.

SOLUTION: A liquid-stirring device 13 and a magnetic field-impressing device 15 are installed in a passage 100. The liquid-stirring device 13 has a plurality of rotors 17a, 17b and 17c, and a plurality of nozzles 19a, 19b and 19c alternatively installed in the interior. The magnetic field-impressing device 15 has N-pole magnets 24, 24... on one side surface and S-pole magnets 25, 25... on the side surface facing thereto. In the liquid-stirring device 13, the emulsion fuel collides with the rotors 17a, 17b and 17c at a high speed by being pressed out from a pump 23 or jetted from nozzles 19a and 19b so as to be crushed, and is comprehensively stirred by the rotation of the rotors 17a, 17b and 17c. When the emulsion fuel passes through the interior of the magnetic field-impressing device 15 from the liquid-stirring device 13, an electromotive force is generated in the vertical direction to the passage direction and the impression direction of the magnetic field, and each of the molecular clusters of a micelle particles is torn off by the electromotive force to promote the mixing and diffusion of the micelle particles and to reduce the particle diameters.

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